

Name: \_\_\_\_\_

Section: \_\_\_\_\_

## Quiz #4

1. [5 points] Draw a memory diagram including the “stack” and the “heap”, as demonstrated in class. Diagram the following code fragment:

```
int x = 7;  
double y = 3.2;  
String a = “hi”;  
String b = a;
```

**[More on the back page...]**

2. [25 points] What will be the output of each of the following code fragments?

a.     String x = new String("hello");  
       String y = new String("hello");  
       if (x == y) {  
           System.out.println("A");  
       } else {  
           System.out.println("B");  
       }  
       if (x.equals(y)) {  
           System.out.println("C");  
       } else {  
           System.out.println("D");  
       }

b.     int a = 0;  
       int b = 6 - ++a;  
       int c = a++ + 4;  
       System.out.println(a);  
       System.out.println(b);  
       System.out.println(c);

c.     int s = 2;  
       s += 2;  
       System.out.println(s);  
       s \*= 2;  
       System.out.println(s);  
       s -= 2;  
       System.out.println(s);  
       s /= 2;  
       System.out.println(s);  
       s %= 2;  
       System.out.println(s);